

Date: Thursday, 19/03/2009 4:30:52 PM  
 Julie Dawson

## Process Sheet

Customer : CU-DAR001 Dart Helicopters Services  
 Job Number : 46615 - 2  
 Estimate Number : 10351  
 P.O. Number :  
 This Issue : 19/03/2009 S.O. No. :  
 Prsht Rev. : NC  
 First Issue : 11 Type : MACHINED PARTS  
 Previous Run : 40494  
 Written By :  
 Checked & Approved By : JUD 09.03.19  
 Comment : Est:A 01.07.11 New Issue SM/EC

Drawing Name : CLAMP  
 Part Number : D30413  
 Drawing Number : D3041 REV C  
 Project Number : N/A  
 Drawing Revision : C  
 Material :  
 Due Date : 06/04/2009

Qty: 27 Um: 40 Each

## Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 D2423 Lug Extrusion



1/46 f(s) 4.58 f(s)



Comment: Qty.: 0.46615 Unit Total: 4.3764 f(s)

Lug Extrusion  
 (D2423)

Batch: B45800

SA 09/03/25

(42)

2.0 BAND SAW BAND SAW



Comment: BAND SAW

Cut D2423 Extrusion: 1.250" Long

SA 09/03/25

(42)

3.0 HAAS1 HAAS CNC VERTICAL MACHINING #1



Comment: HAAS CNC VERTICAL MACHINING #1

Check for cracks while loading into the machine  
 Machine as per Folio FA153 and Dwg D3041  
 Tumble and Deburr rough edges after tumbling  
 Identify as D3041-3

86 09/03/31

H.A 09/03/30

PTO (42)

4.0 QC2 INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

H.A 09/03/30

5.0 QC8 SECOND CHECK



Comment: SECOND CHECK

J.F. 09/04/01 (42)

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: CLAMP

Job Number: 46615

Part Number: D30413

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Acid etch and Alodine as per QSI 005 4.1

M

09-04-02

(40)

7.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

Mask inside of 0.8120" diameter hole

m110939

START TIME:

7:20

OVEN TEMPERATURE:

320°

FINISH TIME:

7:50

FL 09/04/09

(40)

8.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT

09-04-12

(10)

9.0

D2611

Bearing



Comment: Qty.: 1.0000 Each(s)/Unit Total: 40.0000 Each(s)

Bearing

Pick:

Qty Part Number Description Batch

1 D2611 Bearing

B46841

(27)

10.0

SMALL FAB 1

SMALL &amp; MEDIUM FAB RESOURCE 1



Comment: SMALL &amp; MEDIUM FAB RESOURCE 1

1- Press D2611 bearing into lug as per Dwg D3041 using DT9472

2- Stake bearing into place as per Dwg D3041 using DT9456

3-Touch up stake marks with white emeron paint

\*\*PLEASE SEE JASON BEFORE PRESSING

BEARINGS FOR NEW TOOLING \*\*

D30413

(20)

PTC

(27)

Last page

FF 09-04-13

11.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

S0910414 counter (20)



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3041-3 PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR: 46615		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
09-04-13	10.1	#1 lugs scrap. Bearing was pressed on and slightly crooked, causing material to be crushed; pressed out the other side. The striking tool was used for press fitting instead of the press fit tool.	JS11112	Scrap: destroy 7; restock the bearings, or use for another w/o <del>was updated to be more specific....</del>	FF 09/04/13	S 9/4/14	JS11112	6504-13
		R.c. process						

NOTE: Date & initial all entries

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: CLAMP

Job Number: 46615

Part Number: D30413

Job Number:



Seq. #:

Machine Or Operation:

Description :

12.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: \_\_\_\_\_

57463

R 9/4/14 (20)

13.0

QC21

FINAL INSPECTION/W/O RELEASE



09/04/14

Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



u 09.04.14

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b> <del>4661</del> 46615
<b>Description:</b> CLAMP		<b>Part Number:</b> D3041-3
<b>Inspection Dwg:</b> D3041 <b>Rev:</b> C		<b>Page 1 of 1</b>

### FIRST ARTICLE INSPECTION CHECKLIST

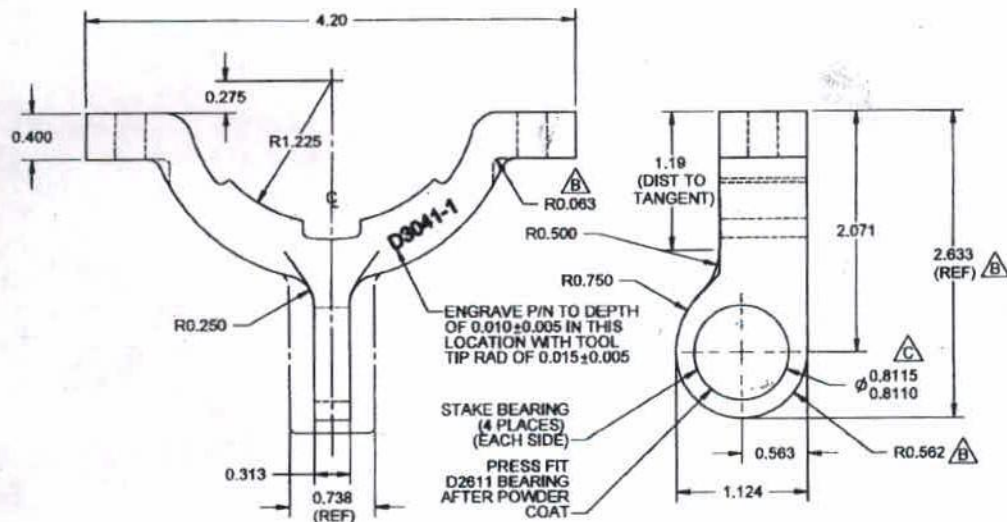
☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
4.20	+/- .030	4.201	✓			
0.240	+/- .010	0.238	✓			
R1.190	+/- .010	R1.190	✓			
0.400	+/- .010	0.397	✓			
R0.250	+/- .010	R0.250	✓			
0.313	+/- .010	0.315	✓			
R0.063	+/- .010	R0.063	✓			
1.19	+/- .030	1.19	✓			
1.124	+/- .010	1.127	✓			
0.563	+/- .010	0.563	✓			
R0.562	+/- .010	R0.562	✓			
Ø0.8115-0.8110	<del>MAX/MIN</del>	Ø0.8110	✓			
2.071	+/- .010	2.070	✓			
0.750	+/- .010	0.748	✓			
0.375	+/- .010	0.378				
R0.338	+/- .010	R0.338	✓			
3.450	+/- .010	3.449	✓			
Ø0.257	+0.005/-0.000	Ø0.259	✓			
R0.375	+/- .010	R0.375	✓			
0.375	+/- .010	0.376	✓			
R0.032	+/- .010	R0.032	✓			
R0.250	+/- .010	R0.250	✓			

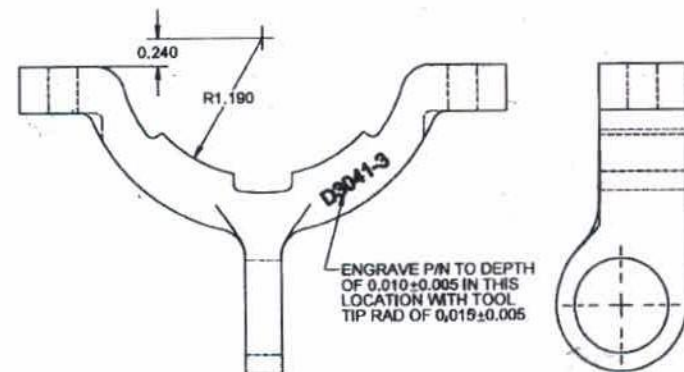
<b>Measured by:</b> K.A	<b>Audited by:</b> J.F	<b>Prototype Approval:</b>	N/A
<b>Date:</b> 09/03/30	<b>Date:</b> 09/04/01	<b>Date:</b>	N/A

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	

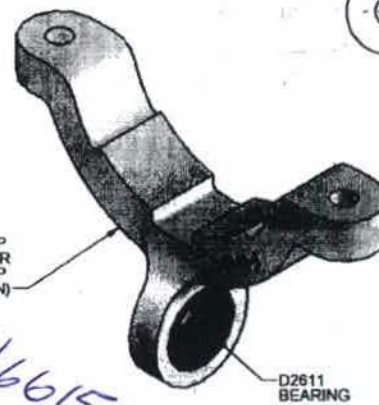




**D3041-1 CLAMP**



**D3041-3 CLAMP**  
(SAME AS D3041-1  
EXCEPT AS SHOWN)



D3041-1 CLAMP  
(SHOWN) OR  
D3041-3 CLAMP  
(NOT SHOWN)

NO WORK ORDER  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
IN CONTROLLED COPY  
RETURN TO  
ENGINEERING  
SHOP COPY

- 1) MATERIAL: MANUFACTURE FROM D2423 EXTRUSION
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED
- 5) BREAK ALL SHARP CORNERS 0.010 TO 0.020
- 6) STAKE D2611 BEARING AFTER POWDER COAT
- 7) PART IS SYMMETRIC ABOUT C

RELEASED

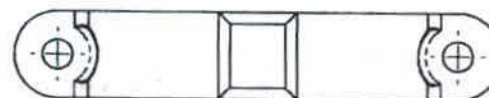
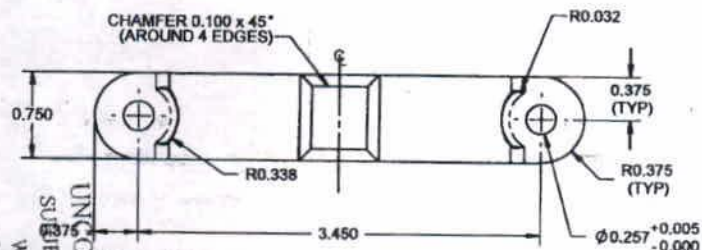
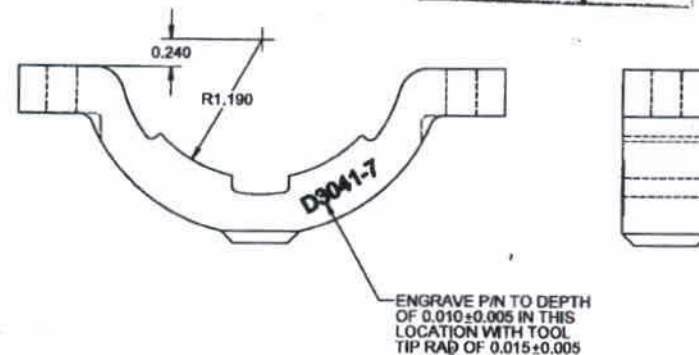
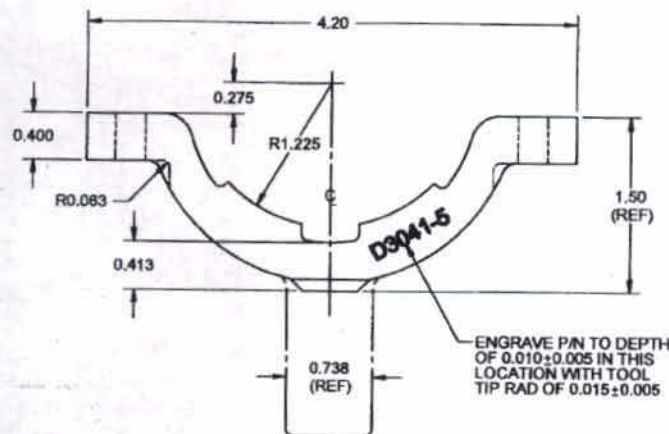
06.11.17

C	06.10.18	CHANGED BEARING HOLE TOLERANCE
B	06.06.05	CHG TO RND END DETAIL, 0.063 WAS 0.032, ADD TOL. & D3041-5A-7
A	01.06.28	NEW ISSUE
REV	DATE	DESCRIPTION
DESIGN	90	C.B.
CHECKED	APPROVED	DART AEROSPACE USA, INC. PORT HADLOCK, WA
DATE	06.10.18	DRAWING NO. D3041
		TITLE CLAMP
		SCALE 1:1

COPYRIGHT © 2011 BY DART AEROSPACE USA, INC.  
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE  
OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.

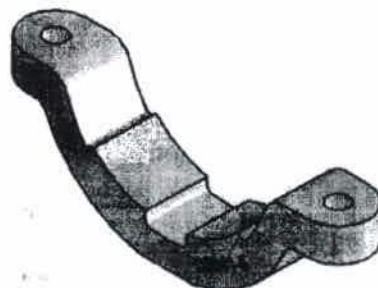
RELEASED

06.11.17



**D3041-7 CLAMP**  
(SAME AS D3041-5  
EXCEPT AS SHOWN)

**D3041-5 CLAMP**



- 1) MATERIAL: MANUFACTURE FROM D2423 EXTRUSION  
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3  
3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED  
4) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED  
5) BREAK ALL SHARP CORNERS 0.010 TO 0.020  
6) PART IS SYMMETRIC ABOUT C

NO WORK ORDER  
RETURN TO  
ENGINEERING  
UNCONTROLLED  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE

DESIGN 90	DRAWN BY CB	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED J	APPROVED H	DRAWING NO. D3041	REV. C
DATE 06.10.18	TITLE CLAMP	SHEET 2 OF 2	
COPYRIGHT © 2001 BY DART AEROSPACE USA, INC.		SCALE 1:1	